

# A Guide for Researchers Interested in Conducting Research at the UNC Mini Mart



## Contents

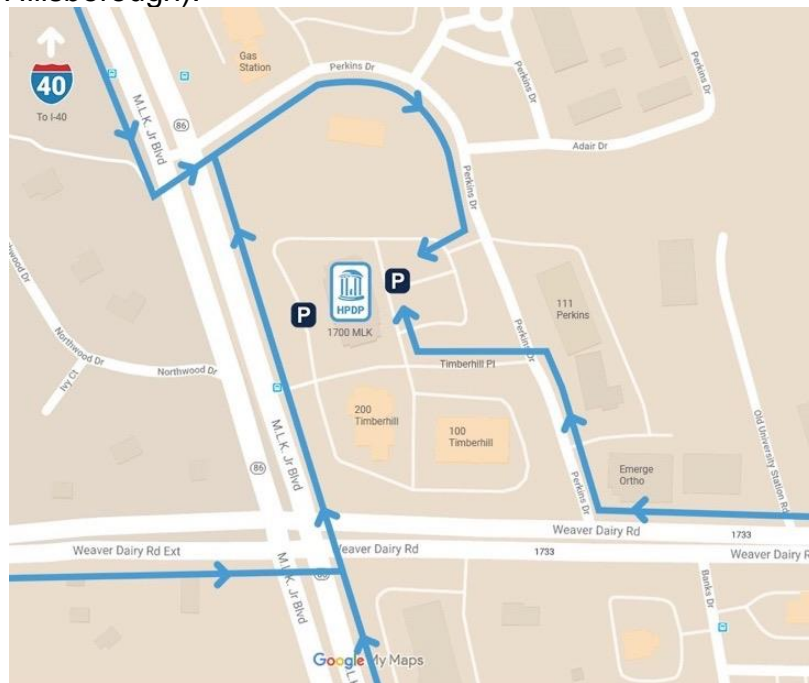
<b>General Overview.....</b>	<b>3</b>
Location.....	3
Store Set-Up.....	3
<b>Research at the UNC Mini Mart .....</b>	<b>4</b>
Studies at the UNC Mini Mart .....	4
Participant Reception .....	4
Research Possibilities at the UNC Mini Mart.....	4
<b>Costs to Consider .....</b>	<b>5</b>
Inventory .....	5
Sales Tax .....	5
Point-of-Sale System .....	5
Incentives .....	6
Parking Passes.....	6
Price Tags.....	6
Permits .....	6
Other Expense Considerations .....	6
<b>Study Feasibility .....</b>	<b>7</b>
Study Design .....	7
Restocking Products .....	7
<b>Participant Consideration .....</b>	<b>8</b>
Accessibility .....	8
<b>Useful Tools.....</b>	<b>8</b>
Participant Communication: Google Voice & Study Phones .....	8
Participant Scheduling: DocMeIn .....	8
Walmart Grocery.....	8
<b>Contact .....</b>	<b>8</b>
<b>Appendix I. Press .....</b>	<b>9</b>
<b>Appendix II. Store set-up for Fall 2020 Study .....</b>	<b>10</b>

## General Overview

The UNC Mini Mart is 245-square-foot experimental laboratory designed to look like a real-world convenience store. The UNC Mini Mart provides a controlled environment in which researchers can study and experimentally evaluate the impact of point-of-sale policies and interventions on consumer behavior.

## Location

The UNC Mini Mart is located on the second floor of the UNC Center for Health Promotion and Disease Prevention ([HPDP](#)). HPDP is located in Chapel Hill at 1700 Martin Luther King Jr. Blvd – approximately a 10-minute drive from main campus. HPDP has a parking lot available to those with a visitor permit or valid UNC parking permit, and it is accessible by the free NS and T buses from [Chapel Hill Transit](#), which run Monday through Friday. All Chapel Hill Transit buses are free. Due to its proximity to the highway (I-40), the lab can be easily accessed by people living in surrounding cities (e.g., Durham, Hillsborough).



## Store Set-Up

The research lab consists of three different rooms: a waiting room, a computer room, and the UNC Mini Mart. The waiting room has a table with four chairs, magazines, and a toy box. In previous studies, this area has been used to consent participants. In the computer room, there are two desktop computers, separated by a filing cabinet, enabling two participants to complete surveys simultaneously.

The UNC Mini Mart has a center gondola unit, a wall gondola unit, a commercial refrigerator, a chest refrigerator/freezer, a metal rack for storage, a checkout counter, and two shopping baskets (see Appendix II for photos).

## Research at the UNC Mini Mart

### Studies at the UNC Mini Mart

In fall 2019, researchers completed the first study at the UNC Mini Mart. The research focused on addressing Latino health disparities via two obesity prevention policies – taxing sugary drinks and placing a warning label on sugary drinks. The pilot feasibility study enrolled two cohorts of participants for a total of 61 participants. Each cohort participated in the study once a week for five weeks. All participants self-identified as Hispanic or Latino and had at least one child ages 2 to 18. After visiting the store in its control state during week one, participants were exposed to either sugary drink taxes (cohort 1) or warning labels (cohort 2) for the remainder of the study (week two through five). Study retention was 97%.

In spring 2020, a randomized control trial (RCT) began at the UNC Mini Mart. The study was paused in March 2020, due to the coronavirus pandemic. The RCT is evaluating the impact of pictorial warning labels on sugary drink purchases among parents of children ages 2-12 (n=326). Participants are randomly assigned to either see a control label or a pictorial warning label on all sugary drinks in the UNC Mini Mart.

### Participant Reception

A process evaluation of participants' experiences at the UNC Mini Mart in fall 2019 were overwhelmingly positive. Ninety-two percent of participants said they could imagine doing real-life beverage shopping in the UNC Mini Mart and 94% of participants said the UNC Mini Mart felt like a real store. Additionally, during exit interviews conducted with the same sample, numerous participants expressed enjoying completing a shopping task in the UNC Mini Mart and many remarked that the lab reminded them of a real-life convenience store.

### Research Possibilities at the UNC Mini Mart

The UNC Mini Mart has successfully been used to evaluate approaches for reducing sugary drink consumption; other possible applications include, but are not limited to, research about ultra-processed food, cigarettes, e-cigarettes, alcohol, CBD, and red meat. Researchers could test numerous point-of-sale policies and interventions in the UNC Mini Mart, including pricing policies, product or point-of-sale warning labels, marketing restrictions, and voluntary actions (e.g., placing healthy products rather than unhealthy products near the register).

## Process for Using the Store

Prior to seeking funding or conducting a study in the Mini Mart, researchers will need to meet with both Dr. Taillie and Hall, as well as HPDP, to obtain permission.

Conversations about this should occur prior to grant proposal submission. UNC-led grants that include the Mini Mart as a central component may be asked to consider routing their grants through HPDP as a way to support the overhead costs of store

maintenance. Prior to beginning any new studies, researchers will need to agree upon a Memorandum of Understanding (MOU) with HPDP. Additionally, researchers will need a separate MOU with Dr. Taillie and Hall.

## Costs to Consider

Below are suggested costs to consider while conceptualizing a research study and compiling a proposed budget.

### Personnel

When budgeting, be sure to consider personnel costs. Incorporate funds for a project coordinator to handle logistics and other aspects of project management. Additionally, budget for research assistants as to staff the store.

### Inventory

The UNC Mini Mart can hold large amounts of inventory. Given this, maintaining inventory is one of the largest costs to budget for when designing a study for the UNC Mini Mart.

For the Fall 2019 study, the store was stocked with food and household goods that resembled inventory at a convenience store and beverages that resembled inventory at a supermarket. The store had over 200 unique brands and sizes of packaged beverage products and more than 60 unique food products and household goods. The store always maintained approximately three of each product for a total inventory of almost 1,000 products.

For the spring 2020 study, the store more closely resembled a convenience store and had 137 unique food products, 37 unique beverages, and 30 unique household goods. The store always maintained approximately three of each product for a total inventory of approximately 600 products.

When budgeting, be sure to consider the cost of initially stocking the store, as well as replacing products that participants take home and products that expire. The store is equipped with a metal bakery rack for storage of extra inventory.

### Sales Tax

Due to North Carolina tax law, all UNC Mini Mart products given to participants must be taxed. To pay sales tax, the research team will have to register the UNC Mini Mart as a business (which is a fairly simple process) and then work with their finance team to pay monthly sales tax on all products given to participants. Details about the North Carolina tax requirements can be found [here](#).

### Point-of-Sale System

The UNC Mini Mart comes equipped with an iPad, Bluetooth scanner, and Bluetooth receipt printer. Using a point-of-sale system is recommend for managing sales and

inventory. Researchers at the UNC Mini Mart have previously used the [PHP POS system](#). The system costs \$34 per month for the cloud version. Alternatively, there is a downloadable version for a one-time fee of \$299. While the study is in progress, it is recommended to use the cloud version, which allows research staff to access the purchasing and inventory data from any device.

### Incentives

For both studies conducted to date, the UNC team deducted the cost of each participant's Mini Mart purchases from the total incentive price. This system worked well and did not require any financial transaction on the participants' end.

Bank of America Visa gift cards were used in the Fall 2019 study. By using visa gift cards, the research team did not have to maintain large amounts of cash in the store and was able to load exact incentive amounts on the card. However, due to the demographics of the study population (e.g., few with emails, not tech savvy), many participants had difficulty activating the cards. This may not be a concern for study populations that have easy access to a computer and email address, such as college students.

For the Spring 2020 study, cash was used in place of Visa gift cards. After deducting the cost of the Mini Mart purchases, the research team rounded up the cash incentive to the nearest dollar to avoid using coins. For example, if the incentive amount was \$40 and the participant selected a product from the UNC Mini Mart that cost \$2.25, the participant would receive the product and \$38 in cash, for a total incentive value of \$40.

### Parking Passes

Parking passes for the HPDP parking lot are required on weekdays (Monday-Friday). The parking passes cost \$3/pass and must be purchased from HPDP by the research team for participants. If participants do not have a parking pass, they run the risk of being ticketed. Parking passes are not required on Saturdays or Sundays.

### Price Tags

Including price tags for all products, will enhance the realism of the store. Research staff can purchase label paper to print price tags, and then laminate the prices tags to improve their durability.

### Permits

For studies involving alcohol or tobacco, the research team must acquire the appropriate permits. Information about alcohol permits can be found on the [ABC website](#). Information about cigarette and other tobacco licensure can be found on the [NC Department of Revenue website](#).

### Other Expense Considerations

Researchers may want to budget for unexpected issues with equipment in the UNC Mini Mart (e.g., fridge breaks or malfunctions, iPad is breaks or is lost). Researchers may

want to consider purchasing branded reusable shopping bags for participants. There may be certain overhead costs to budget for as well, such as printing.

## Study Feasibility

There are several important factors to consider when designing an in-person study for the UNC Mini Mart. Many variables that can be easily manipulated in an online or virtual store are not easily manipulated in a real-life setting.

### Study Design

If designing a study that involves swapping out or randomizing products between participants, consider limiting the number of products that need to be swapped out, as this can be time consuming and physically demanding for research staff.

In the Spring 2020 RCT, which exposed one arm to a barcode label on sugary drinks and one arm to a warning label on sugary drinks, the study limited sugary drinks to the refrigerator (approximately 15 sugary drinks). By keeping the quantity limited, the research staff could easily swap out, in about 10 minutes, labelled beverages depending on the participant's arm. To swap out beverages between conditions, RAs would swap beverages from the commercial refrigerator and with the other arm's beverages which were stored in the chest fridge/freezer.

While swapping out large numbers of products between arms would be burdensome and complicated, a study requiring swapping of other store components, like price tags or posters would be much easier.

### Restocking Products

Because the inventory turnover at the UNC Mini Mart is infrequent, it is not financially feasible to contract with a product vendor who brings new inventory weekly. To restock products at the UNC Mini Mart, research staff has relied on ordering products from grocery retailers located close by (e.g., Harris Teeter, Walmart).

Depending on the shopping task and sample size, consider limiting the number of goods participants can purchase, as the logistics of frequently restocking products can become complicated. Certain high-demand products may be out of stock when reordering products from a retailer, which can lead to difficulties with restocking the product at the Mini Mart. In the Spring 2020 study, participants were asked to select one snack, one beverage, and one household good. One of the three items was then "randomly" selected for the participant to take home. The participant was not aware until after the study that the beverage is always randomly selected. Limiting the participants to one product, helped to limit frequent restocking and enabled staff to ensure all products were all stocked at the UNC Mini Mart. Additionally, consider expiration dates of products when selecting store inventory. Choosing shelf-stable items that do not expire often will help to decrease inventory costs.

## Participant Consideration

### Accessibility

The UNC Mini Mart is located on the second floor of HPDP, which is accessible by elevator. Because the lab is located on the second floor, some participants might not want to purchase bulky or heavy items, which they may have difficulty in getting to their cars. The UNC Mini Mart comes equipped with a pushcart that may be used for transporting items, and research assistants can offer to help bring participants' purchases to their cars.

## Useful Tools

### Participant Communication: Google Voice & Study Phones

Google Voice enables research assistants the ability to sign in with their personal phones and the store cell phones, simultaneously, to receive calls and texts from study participants.

Using a [paid Google Voice plan](#) prevents Google Voice from locking the account. The account can unexpectedly lock if too much activity is occurring, and it believes the account owner is spamming people. Having one or two study-exclusive phones on site is beneficial, so research assistants do not need to use their personal phones.

### Participant Scheduling: DocMeIn

[DocMeIn](#) is an effective tool for scheduling participants. It allows research teams to send out automatic reminder texts, calls, and/or emails to participants prior to their visits. This service is free, and premium features (text and voice reminders) are offered at pay-as-you-go rates.

### Walmart Grocery

To stock the store, the UNC team utilized [Walmart Grocery](#) to deliver products weekly (or more frequently if needed). Walmart offers the lowest prices for most products and allows tax-exempt purchases.

There are two grocery stores located near HPDP, Harris Teeter (1800 Martin Luther King Jr Blvd, North, Chapel Hill, NC 27514) and Food Lion (1129 Weaver Dairy Rd, Chapel Hill, NC 27514). It is important to note that Food Lion does NOT accept tax-exempt purchases.

## Contact

Are you interested in conducting research using the UNC Mini Mart? Please contact Marissa Hall and Lindsey Smith Taillie to learn more.

[Marissa G. Hall](#), PhD  
[mghall@unc.edu](mailto:mghall@unc.edu)

*Assistant Professor*, Department of Health Behavior, Gillings School of Public Health, UNC



*Member, Lineberger Comprehensive Cancer Center*

[Lindsey Smith Taillie](#), PhD

[taillie@unc.edu](mailto:taillie@unc.edu)

*Assistant Professor, Department of Nutrition Gillings School of Public Health, UNC*

*Fellow, Carolina Population Center*

## **Appendix I. Press**

[UNC Article](#)

[Daily Tar Heel Article](#)

## Appendix II. Store set-up for Fall 2020 Study







